


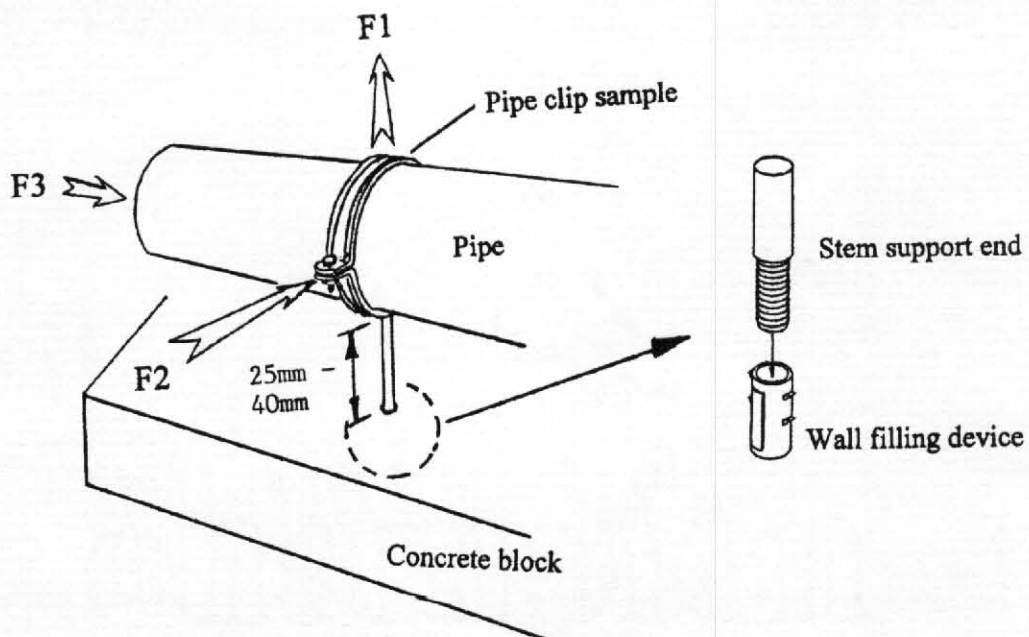


## TEST REPORT

TITLE : Testing of Pipe Clip  
OUR REFERENCE NO. : J8861-9  
DESCRIPTION OF SAMPLE : Ø15mm (½") Stainless steel pipe clip supplied with plastic wall filling device; for BS3505/BS3506 uPVC/plastic pressure pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" screws and nuts.  
SAMPLE SUBMITTED BY : Cheung's Engineering Co.  
G/F., 90 Tak Cheong Street,  
Kowloon, Hong Kong.  
MANUFACTURER : Cheung's Engineering Co.  
BRAND / LOGO :  Pipe Clips  
COUNTRY OF ORIGIN : China  
TEST REQUIRED : Loading test  
PERIOD OF TESTS : 20<sup>th</sup> to 24<sup>th</sup> January 2003

### RESULTS: - LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.
2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.





## TEST REPORT


OUR REFERENCE NO. J8861-9 (P.2)

3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. An uPVC pressure pipe of BS3505/BS3506 was connected to the pipe clip.
4. The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.
6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.
7. Result :

Vertical force <b>F1</b> to detach the pipe clip from the concrete block (kgf)	Horizontal force <b>F2</b> to result in a 20mm horizontal deflection (kgf)	Horizontal force <b>F3</b> to slip the pipe by 20mm (kgf)
260	290.6	183.5

Date : 15<sup>th</sup> February 2003 Authorized signature : \_\_\_\_\_


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**Samson W.K. Yiu**

( Director )

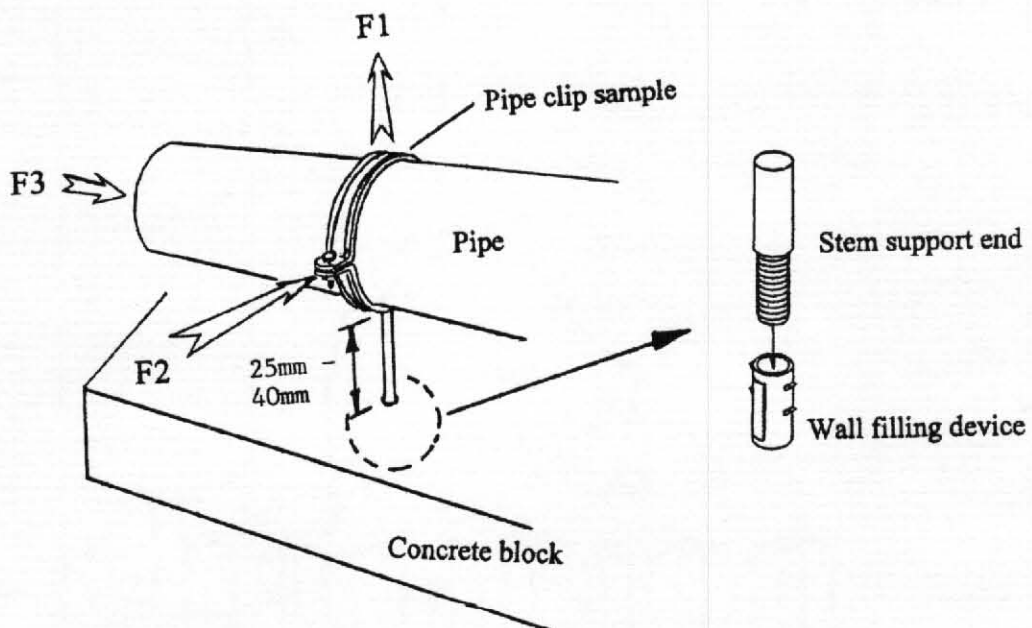


## TEST REPORT

TITLE : Testing of Pipe Clip  
OUR REFERENCE NO. : J8861-10  
DESCRIPTION OF SAMPLE : Ø20mm (¾") Stainless steel pipe clip supplied with plastic wall filling device; for BS3505/BS3506 uPVC/plastic pressure pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" screws and nuts.  
SAMPLE SUBMITTED BY : Cheung's Engineering Co.  
G/F., 90 Tak Cheong Street,  
Kowloon, Hong Kong.  
MANUFACTURER : Cheung's Engineering Co.  
BRAND / LOGO :  Pipe Clips  
COUNTRY OF ORIGIN : China  
TEST REQUIRED : Loading test  
PERIOD OF TESTS : 20<sup>th</sup> to 24<sup>th</sup> January 2003

### RESULTS: - LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.
2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.





# NUTEK SYSTEMS, LTD.


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## TEST REPORT

OUR REFERENCE NO. J8861-10 (P.2)

3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. An uPVC pressure pipe of BS3505/BS3506 was connected to the pipe clip.
4. The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.
6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.
7. Result :

Vertical force <b>F1</b> to detach the pipe clip from the concrete block  (kgf)	Horizontal force <b>F2</b> to result in a 20mm horizontal deflection  (kgf)	Horizontal force <b>F3</b> to slip the pipe by 20mm  (kgf)
260	275.3	229.4

Date : 15<sup>th</sup> February 2003 Authorized signature : 


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( Director )

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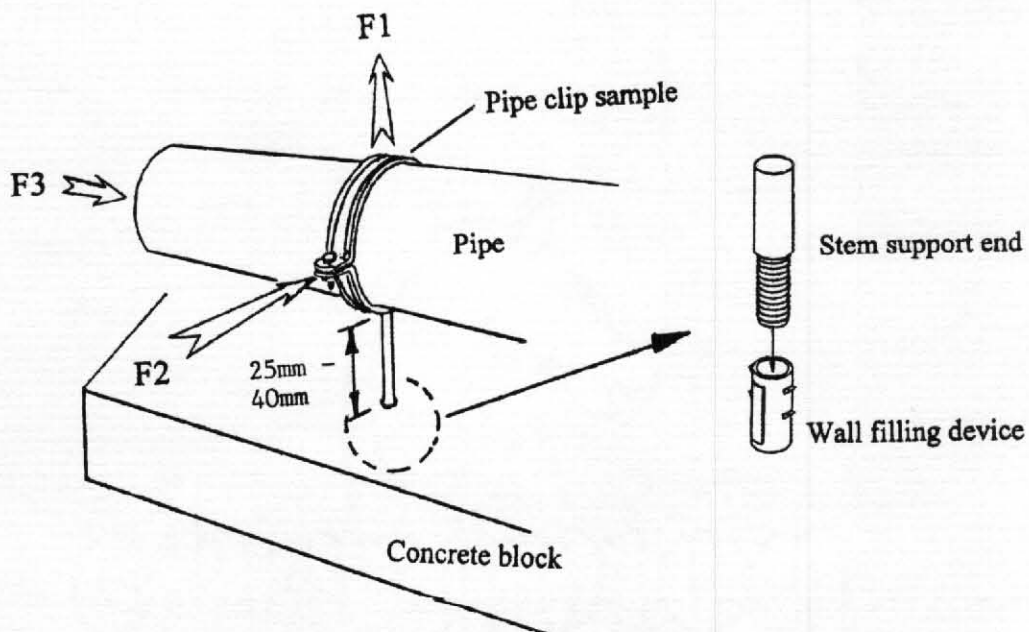


## TEST REPORT

TITLE : Testing of Pipe Clip  
OUR REFERENCE NO. : J8861-11  
DESCRIPTION OF SAMPLE : Ø25mm (1") Stainless steel pipe clip supplied with plastic wall filling device; for BS3505/BS3506 uPVC/plastic pressure pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" screws and nuts.  
SAMPLE SUBMITTED BY : Cheung's Engineering Co.  
G/F., 90 Tak Cheong Street,  
Kowloon, Hong Kong.  
MANUFACTURER : Cheung's Engineering Co.  
BRAND / LOGO :  Pipe Clips  
COUNTRY OF ORIGIN : China  
TEST REQUIRED : Loading test  
PERIOD OF TESTS : 20<sup>th</sup> to 24<sup>th</sup> January 2003

### RESULTS: - LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.
2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.



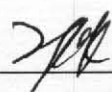


## TEST REPORT

OUR REFERENCE NO. J8861-11 (P.2)

3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. An uPVC pressure pipe of BS3505/BS3506 was connected to the pipe clip.
4. The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.
6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.
7. Result :

Vertical force <b>F1</b> to detach the pipe clip from the concrete block (kgf)	Horizontal force <b>F2</b> to result in a 20mm horizontal deflection (kgf)	Horizontal force <b>F3</b> to slip the pipe by 20mm (kgf)
260	244.7	183.5

Date : 15<sup>th</sup> February 2003 Authorized signature : 


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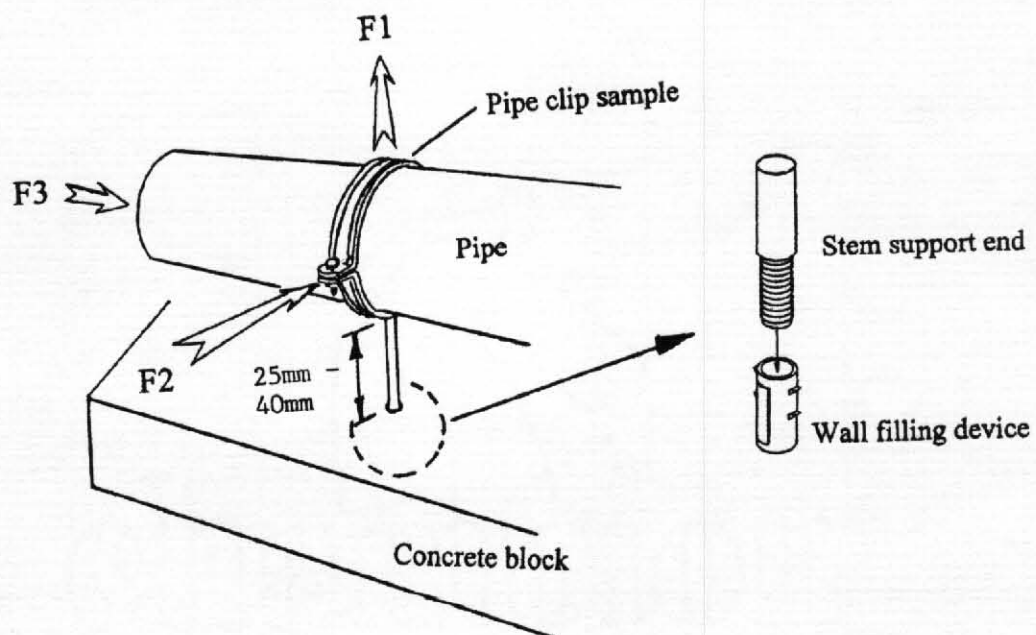


## TEST REPORT

TITLE : Testing of Pipe Clip  
OUR REFERENCE NO. : J8861-12  
DESCRIPTION OF SAMPLE : Ø32mm (1¼") Stainless steel pipe clip supplied with plastic wall filling device; for BS3505/BS3506 uPVC/plastic pressure pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" screws and nuts.  
SAMPLE SUBMITTED BY : Cheung's Engineering Co.  
G/F., 90 Tak Cheong Street,  
Kowloon, Hong Kong.  
MANUFACTURER : Cheung's Engineering Co.  
BRAND / LOGO :  Pipe Clips  
COUNTRY OF ORIGIN : China  
TEST REQUIRED : Loading test  
PERIOD OF TESTS : 20<sup>th</sup> to 24<sup>th</sup> January 2003

### RESULTS: - LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.
2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.






## TEST REPORT

OUR REFERENCE NO. J8861-12 (P.2)

3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. An uPVC pressure pipe of BS3505/BS3506 was connected to the pipe clip.
4. The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.
6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.
7. Result :

Vertical force <b>F1</b> to detach the pipe clip from the concrete block  (kgf)	Horizontal force <b>F2</b> to result in a 20mm horizontal deflection  (kgf)	Horizontal force <b>F3</b> to slip the pipe by 20mm  (kgf)
260	260.0	260.0

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**Samson W.K. Yiu**  
( Director )



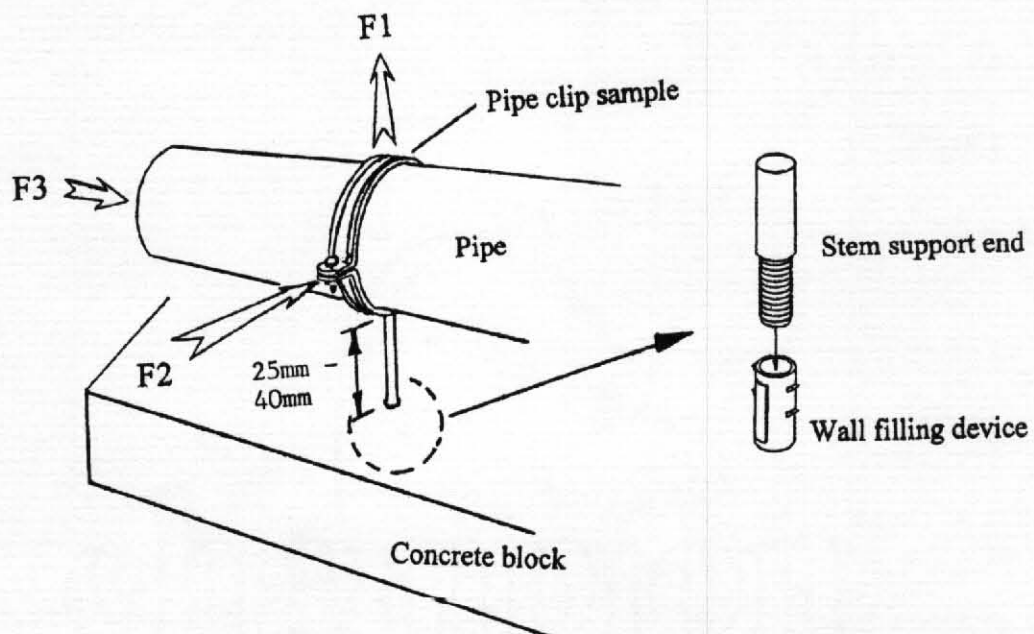


## TEST REPORT

TITLE : Testing of Pipe Clip  
OUR REFERENCE NO. : J8861-13  
DESCRIPTION OF SAMPLE : Ø40mm (1½") Stainless steel pipe clip supplied with plastic wall filling device; for BS3505/BS3506 uPVC/plastic pressure pipe; dimensions: 15mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 3/16" x 5/8" screws and nuts.  
SAMPLE SUBMITTED BY : Cheung's Engineering Co.  
G/F., 90 Tak Cheong Street,  
Kowloon, Hong Kong.  
MANUFACTURER : Cheung's Engineering Co.  
BRAND / LOGO :  Pipe Clips.  
COUNTRY OF ORIGIN : China  
TEST REQUIRED : Loading test  
PERIOD OF TESTS : 20<sup>th</sup> to 24<sup>th</sup> January 2003

### RESULTS: - LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.
2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.



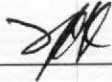


## TEST REPORT

### OUR REFERENCE NO. J8861-13 (P.2)

3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. An uPVC pressure pipe of BS3505/BS3506 was connected to the pipe clip.
4. The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.
6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.
7. Result :

Vertical force <b>F1</b> to detach the pipe clip from the concrete block  (kgf)	Horizontal force <b>F2</b> to result in a 20mm horizontal deflection  (kgf)	Horizontal force <b>F3</b> to slip the pipe by 20mm  (kgf)
260	244.7	260.0


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**Samson W.K. Yiu**  
( Director )

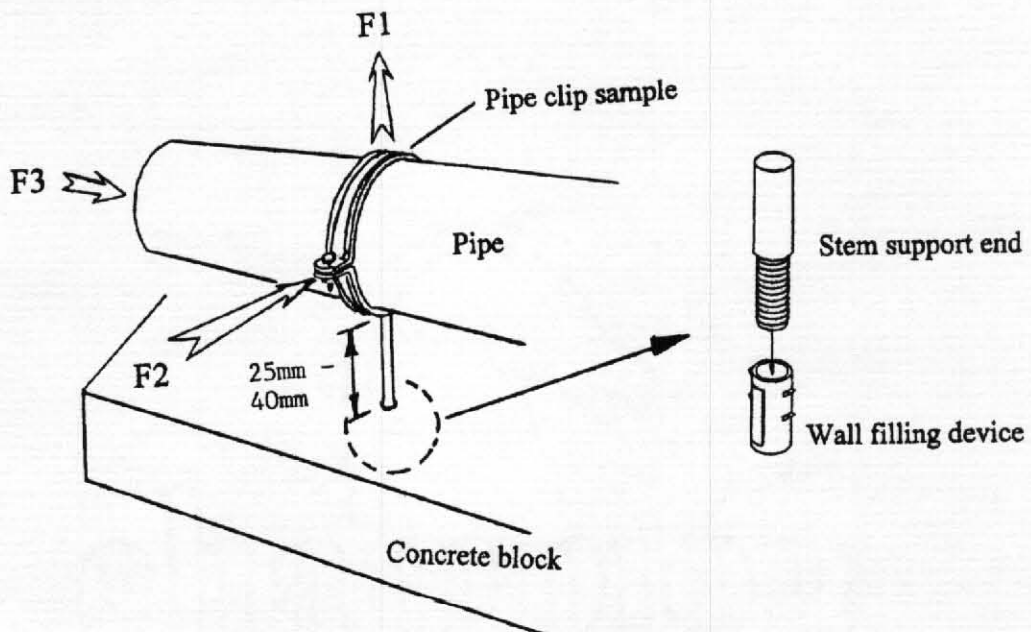


## TEST REPORT

TITLE : Testing of Pipe Clip  
OUR REFERENCE NO. : J8861-14  
DESCRIPTION OF SAMPLE : Ø50mm (2") Stainless steel pipe clip supplied with plastic wall filling device; for BS3505/BS3506 uPVC/plastic pressure pipe; dimensions: 18mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with 1/4" x 3/4" screws and nuts.  
SAMPLE SUBMITTED BY : Cheung's Engineering Co.  
G/F., 90 Tak Cheong Street,  
Kowloon, Hong Kong.  
MANUFACTURER : Cheung's Engineering Co.  
BRAND / LOGO :   
COUNTRY OF ORIGIN : China  
TEST REQUIRED : Loading test  
PERIOD OF TESTS : 20<sup>th</sup> to 24<sup>th</sup> January 2003

### RESULTS: - LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.
2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.





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## TEST REPORT

OUR REFERENCE NO. J8861-14 (P.2)

3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. An uPVC pressure pipe of BS3505/BS3506 was connected to the pipe clip.
4. The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.
6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.
7. Result :

Vertical force <b>F1</b> to detach the pipe clip from the concrete block (kgf)	Horizontal force <b>F2</b> to result in a 20mm horizontal deflection (kgf)	Horizontal force <b>F3</b> to slip the pipe by 20mm (kgf)
260	198.8	183.5


Date : 15<sup>th</sup> February 2003 Authorized signature : 

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**Samson W.K. Yiu**  
( Director )

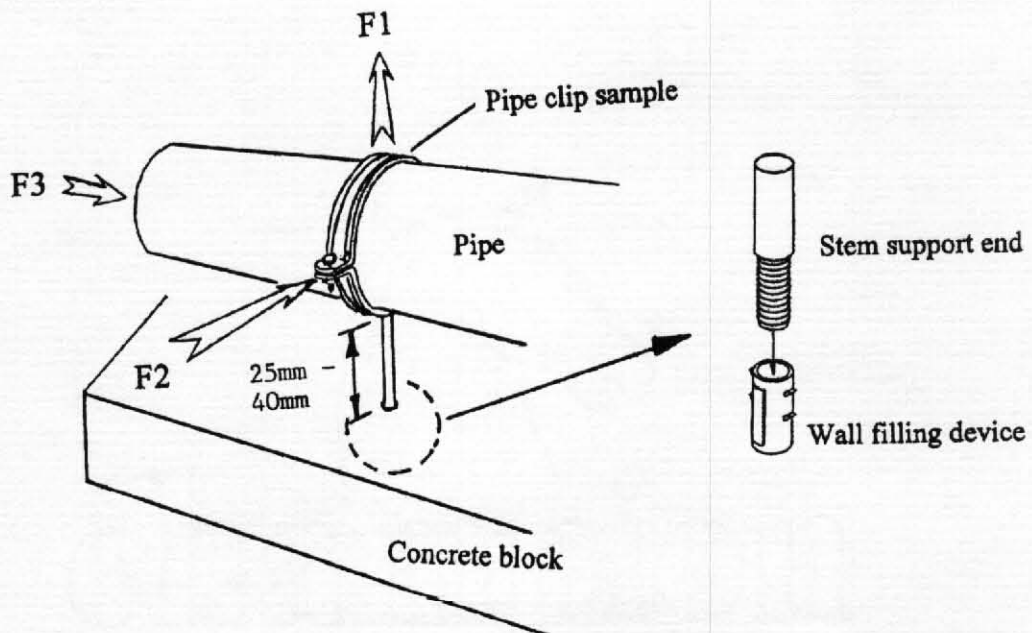


## TEST REPORT

TITLE : Testing of Pipe Clip  
OUR REFERENCE NO. : J8861-15  
DESCRIPTION OF SAMPLE : Ø65mm (2½") Stainless steel pipe clip supplied with plastic wall filling device; for BS3505/BS3506 uPVC/plastic pressure pipe; dimensions: 18mm width x 2.5mm thick ring; with Ø9mm support stem electrically welded onto the ring; with ¼" x ¾" screws and nuts.  
SAMPLE SUBMITTED BY : Cheung's Engineering Co.  
G/F., 90 Tak Cheong Street,  
Kowloon, Hong Kong.  
MANUFACTURER : Cheung's Engineering Co.  
BRAND / LOGO :  Pipe Clips  
COUNTRY OF ORIGIN : China  
TEST REQUIRED : Loading test  
PERIOD OF TESTS : 20<sup>th</sup> to 24<sup>th</sup> January 2003

### RESULTS: - LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.
2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.






## TEST REPORT

OUR REFERENCE NO. J8861-15 (P.2)

- The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. An uPVC pressure pipe of BS3505/BS3506 was connected to the pipe clip.
  - The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
  - Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.
  - Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.
7. Result :

Vertical force <b>F1</b> to detach the pipe clip from the concrete block  (kgf)	Horizontal force <b>F2</b> to result in a 20mm horizontal deflection  (kgf)	Horizontal force <b>F3</b> to slip the pipe by 20mm  (kgf)
260	214.1	244.7

Date : 15<sup>th</sup> February 2003 Authorized signature : 


**Samson W.K. Yiu**

( Director )

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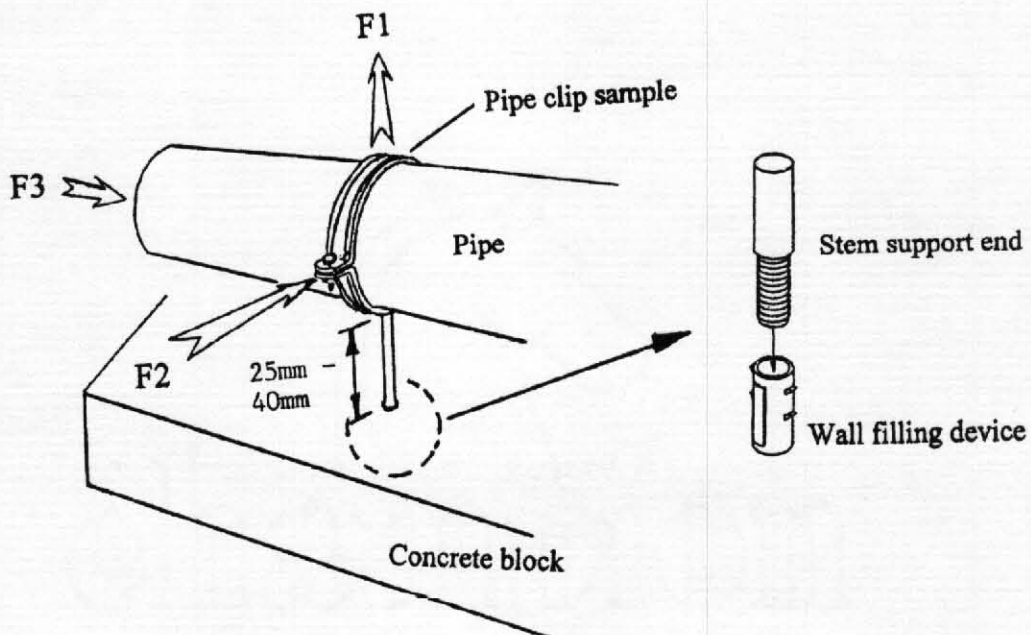


## TEST REPORT

TITLE : Testing of Pipe Clip  
OUR REFERENCE NO. : J8861-16  
DESCRIPTION OF SAMPLE : Ø80mm (3") Stainless steel pipe clip supplied with plastic wall filling device; for BS3505/BS3506 uPVC/plastic pressure pipe; dimensions: 19mm width x 3mm thick ring; with Ø12mm support stem electrically welded onto the ring; with 1/4" x 3/4" screws and nuts.  
SAMPLE SUBMITTED BY : Cheung's Engineering Co.  
G/F., 90 Tak Cheong Street,  
Kowloon, Hong Kong.  
MANUFACTURER : Cheung's Engineering Co.  
BRAND / LOGO :  Pipe Clips  
COUNTRY OF ORIGIN : China  
TEST REQUIRED : Loading test  
PERIOD OF TESTS : 20<sup>th</sup> to 24<sup>th</sup> January 2003

### RESULTS: - LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.
2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.





## TEST REPORT


OUR REFERENCE NO. J8861-16 (P.2)

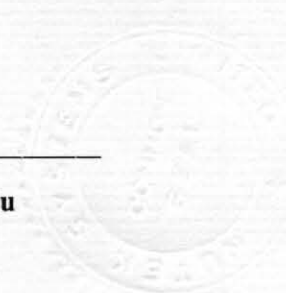
3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. An uPVC pressure pipe of BS3505/BS3506 was connected to the pipe clip.
4. The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.
6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.
7. Result :

Vertical force <b>F1</b> to detach the pipe clip from the concrete block  (kgf)	Horizontal force <b>F2</b> to result in a 20mm horizontal deflection  (kgf)	Horizontal force <b>F3</b> to slip the pipe by 20mm  (kgf)
380	198.8	305.9

Date : 15<sup>th</sup> February 2003 Authorized signature : \_\_\_\_\_

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Samson W.K. Yiu  
( Director )







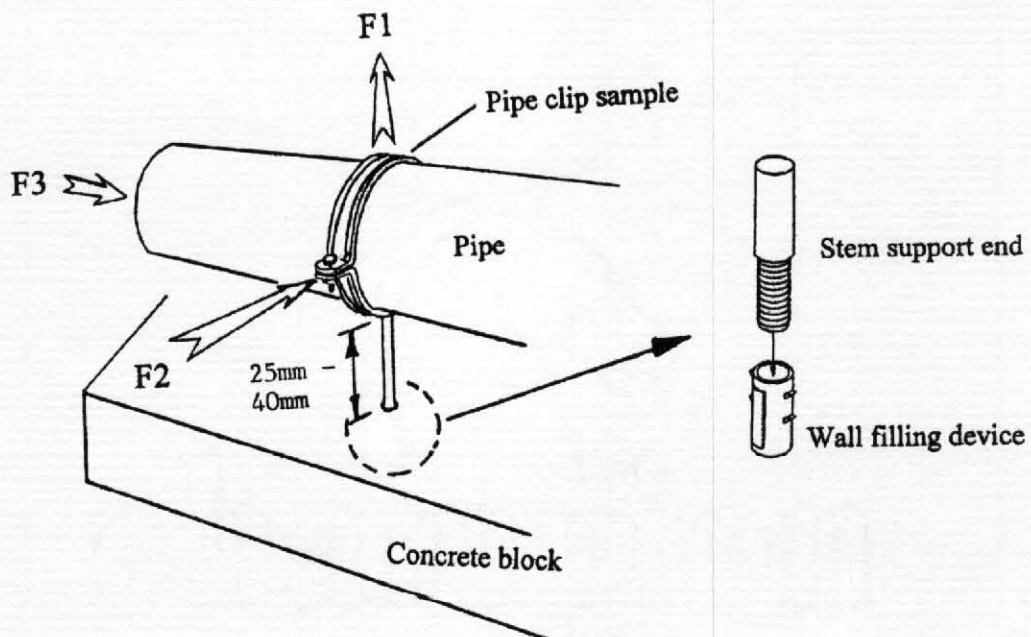
## TEST REPORT

TITLE : Testing of Pipe Clip  
OUR REFERENCE NO. : J8861-17  
DESCRIPTION OF SAMPLE : Ø100mm (4") Stainless steel pipe clip supplied with plastic wall filling device; for BS3505/BS3506 uPVC/plastic pressure pipe; dimensions: 19mm width x 3mm thick ring; with Ø12mm support stem electrically welded onto the ring; with 1/4" x 3/4" screws and nuts.  
SAMPLE SUBMITTED BY : Cheung's Engineering Co.  
G/F., 90 Tak Cheong Street,  
Kowloon, Hong Kong.  
MANUFACTURER : Cheung's Engineering Co.  
BRAND / LOGO :  Pipe Clips.  
COUNTRY OF ORIGIN : China  
TEST REQUIRED : Loading test  
PERIOD OF TESTS : 20<sup>th</sup> to 24<sup>th</sup> January 2003

### RESULTS: -

#### LOADING TEST

1. A concrete block made of concrete mix grade 30D10 (cement to BS12: 1978 and Aggregate to BS882: 1973) was prepared and used for the loading test.
2. The plastic wall filling device was connected to the end of a new pipe clip's support stem.






## TEST REPORT

OUR REFERENCE NO. J8861-17 (P.2)

3. The concrete block was secured to the loading test frame. A hole was drilled on the concrete block; the pipe clip's support stem was hammered into the hole. An uPVC pressure pipe of BS3505/BS3506 was connected to the pipe clip.
4. The vertical pulling force **F1** applied to detach the pipe clip from the concrete block was measured.
5. Steps 1 to 3 were repeated. A horizontal force **F2** applied to the pipe clip (perpendicular to the pipe axis) to result in a 20mm horizontal deflection was measured.
6. Steps 1 to 3 were repeated. A horizontal force **F3** acting on the pipe along its longitudinal axis to slip the pipe from the pipe clip by 20mm was measured.
7. Result :

Vertical force <b>F1</b> to detach the pipe clip from the concrete block  (kgf)	Horizontal force <b>F2</b> to result in a 20mm horizontal deflection  (kgf)	Horizontal force <b>F3</b> to slip the pipe by 20mm  (kgf)
380	137.6	229.4

Date : 15<sup>th</sup> February 2003 Authorized signature : 

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**Samson W.K. Yiu**  
( Director )